

REMARKS

Claims 1-24 and 44-15 are pending; claims 25-43 stand withdrawn.

Rejection under 35 U.S.C. § 103(a)

Claims 1-24, and 44-45 have been rejected under 35 U.S.C. § 103(a) as being obvious over U.S. Patent Application Publication No. 2006/0160205 to Blackburn et al. ("Blackburn") in view of U.S. Patent Application Publication No. 2002/0150933 by Ehricht et al. ("Ehricht"), U.S. Patent No. 5,856,174 to Lipshutz et al. ("Lipshutz"), and U.S. Patent Application Publication No. 2003/0091477 to Paul et al. ("Paul"). Paul is newly cited art. Office Action at 3. Applicants respectfully disagree. Claims 1 and 44 are independent.

Claim 1 relates to a device for holding a substance library carrier. **The device includes two holding elements that are fixable with each other, and that hold a layer composite** that includes: **(i) a lid element** having a detection surface with a substance library on its underneath side and being optically translucent at least in an area of the detection surface, **(ii) a sealing intermediate element having an enclosed recess**; and **(iii) a base element** being optically translucent at least in an area of the detection surface of the lid element. The lid element, the intermediate element and the base element are held together between the two fixed holding elements to form an optically translucent chamber having a chamber space. See claim 1.

Claim 44 relates to a first device for filling a second device for holding a substance library carrier. The second device includes two holding elements that are fixable with each other, and that hold a layer composite. The layer composite includes (i) a lid element having a detection surface with a substance library on its underneath side and being optically translucent at least in an area of the detection surface, (ii) a **sealing intermediate element** having an enclosed recess; and (iii) a base element being optically translucent at least in an area of the detection surface of the lid element. The lid element, the intermediate element and the base element are held together between the two fixed holding elements to form an optically translucent chamber having a chamber space. See claim 44.

Claims 1-24 and 44-45 were rejected as being obvious over Blackburn in view of Ehricht and Lipshutz in the Office Action mailed January 24, 2008. Applicants filed a reply on June 24,

2008, amending the claims and presenting arguments that (a) none of references teach all of the claimed limitations; (b) that the references do not stand for the teachings assigned to them; and (c) there is no reason or motivation to combine the references so as to arrive at the claimed devices. The Office Action addresses none of these arguments. In fact, it provides a nearly total **word for word reproduction** of the text relating to Blackburn, Ehrict and Lipshutz. The only substantial change from the prior Office Action is approximately one page (including a half-page drawing) relating to Paul. Accordingly, Applicants substantially represent the arguments as to Blackburn, Ehrict and Lipshutz, and ask that the Examiner consider these arguments as well as new arguments addressing the Paul reference.

Blackburn

Blackburn relates generally to biochip multiplexing (abstract). The Examiner argues that Blackburn teaches at paragraph 0088 "inlet ports comprising a seal, and wherein the seal comprises a gasket, reading on a sealing intermediate." Office Action at 5.

The assertion that the "gasket" referred to at paragraph 0088 reads on the sealing intermediate of the instant claims is unsupported, and indeed, erroneous. The relevant portion of Blackburn explains that an "inlet port may optionally comprise a seal . . . (as depicted in FIG. 3C and 14B) the seal comprises a gasket, or valve through which a pipette or syringe can be pushed."

There is no indication that the gasket described by Blackburn has an enclosed recess. Nor does Blackburn describe a structural relationship among the gasket, a lid element, and a base element. Most critically, nothing in Blackburn teaches, suggests, or motivates a person of ordinary skill in the art to make a device including a layer composite that includes a lid element, a sealing intermediate element, and a base element, all held together between two fixed holding elements.

Ehricht

The Examiner argues that Ehricht "discloses two holding elements that are fixable with each other (for example, see figure 1 [sic, figure 2] wherein the 'two sides' of element 42

represent 'holding elements' and they are 'fixed' at a distance equal to the length of element 2.)" See the Office Action at page 7. Applicants respectfully disagree.

The Examiner misinterprets figures 1-2 of Ehricht. Ehricht does not disclose "two holding elements that are fixable with each other" as the Examiner asserts, but instead a **single** chamber body (element 1). See, e.g., paragraph 0055: "Device 20 . . . consists of a chamber body 1" Figures 1 and 2 of Ehricht are reproduced below for reference.

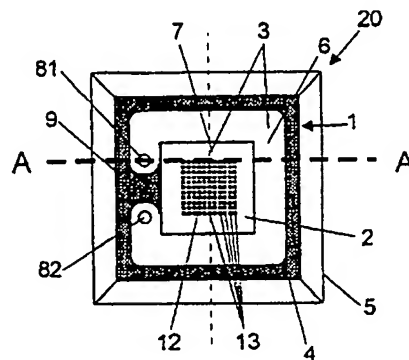


Fig. 1

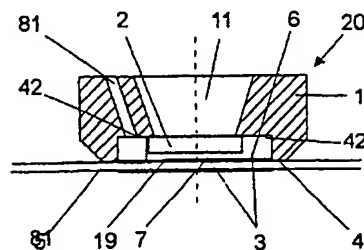


Fig. 2

Thus, Ehricht does not teach **two** holding elements that are fixable with each other.

According to the Examiner, Ehricht does teach such an element, specifically "a chamber body and chamber support wherein the chamber body is provided with a bearing surface via which chamber body is in a sealing connection with chamber support, so that a sample chamber is formed." Office Action at 7. Applicants respectfully disagree that the description of a chamber body "in a sealing connection" with a chamber support can reasonably be interpreted as teaching a sealing intermediate element having an enclosed recess.

Ehricht describe a device having two elements (i.e., a chamber body and a chamber support) in a sealing connection with one another. There is no third, intermediate element.

Rather, the sealing connection is "by means of an adhesive connection or weld connection" (Ehricht at 4, paragraph 0055).

The present claims, however, recite a device having **three** elements: (i) a lid element; (ii) a sealing intermediate element; and (iii) a base element. For example, compare FIGS. 2 and 5 of Ehricht (showing chamber body 1 and chamber support 5) with FIG. 2 of the present application (showing lid element 200, sealing intermediate element 300, and base element 400, as well as holding elements 101 and 102; see the specification, e.g., at 6, paragraph 0029). The specification describes that in one embodiment, the device includes a "layered reaction chamber 500 consisting of the base element 400, the intermediate element 300, and the lid element 200 . . . mounted in the holding elements 101 and 102 that may be engaged with one another." Specification at 15, paragraph 0058.

Moreover, the present claims relate to a device in which the **three** elements that together form an optically translucent chamber having a chamber space are themselves **are held together between two fixed holding elements**. As discussed above, the Examiner's characterization of Ehricht does not support the conclusion that Ehricht teaches two fixed holding elements between which the lid element, the intermediate element and the base element are held. Ehricht does not teach the elements of claims 1 and 44; more particularly, **Ehricht does not teach the elements for which it is cited.**

Lipshutz

The Examiner argues that Lipshutz "teaches in **column 19, lines 20-29** . . . use of an oligonucleotide array (substance library carrier as the bottom surface of a chamber," and "[i]n **column 27, lines 1-3** . . . that the base unit [may] include a second surface which contacts the opposite surface of the device." (emphasis added) (Office Action at 11-12). It is not clear that Lipshutz is describing a single device in these passages selected from disparate portions of the disclosure. Nevertheless, neither the passages mentioned above, nor any other part of Lipshutz, describes a device including two holding elements that are fixable with each other, and that form a layer composite that includes **a sealing intermediate element having an enclosed recess.**

Paul

Paul describes a system for hybridization assays that includes a cartridge for housing an array device. The Examiner, with reference to Fig. 3 of Paul, argues that "at least elements 350 and 310 serve as fixed holding elements."

As discussed in detail above, the combination of Blackburn, Ehricht and Lipshutz does not teach all the elements of independent claims 1 and 44. Paul does not remedy these defects. Paul does not describe a device having a layer composite that includes a sealing intermediate element having an **enclosed recess**. The Examiner has not directly addressed the content of Paul with regard to a sealing intermediate element. Nevertheless, Paul explains that

... upper seal(s) 333, 334, [] can be a single seal, as shown in FIG. 6B. The single upper seal 335 further includes a hole 336 and a slot or channel 337. The location of hole 336 corresponds to the location of the exit hole 429 (FIG. 4D), which directs test (or process) fluid that has passed through the FTC to the exit guide hole 409 and out of the FTC cartridge.

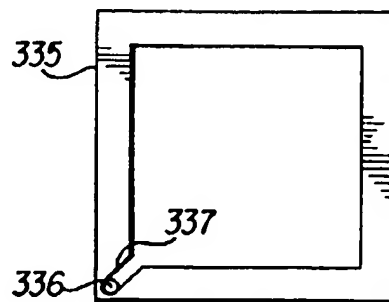


FIG. 6B

Paul at paragraphs 0083-0084 and FIG. 6B. The above passage and figure clearly contemplate a flow through device. The slot, channel and exit hole are inconsistent with a sealing intermediate element having an **enclosed recess**. Paul's flow through device, rather than enclosing a fluid, permits flow.

The references, individually or when combined, fail to teach all the elements of claims 1 and 44. Nothing in the references provides a teaching, suggestion, or motivation to supply the missing elements, nor does common sense or skill in the art supply what the references lack.

The Supreme Court has explained that to facilitate review of a determination of obviousness, the analysis of "interrelated teachings of multiple patents; the effects of demands known to the design community or present in the marketplace; and the background knowledge possessed by a person having ordinary skill in the art. . . should be made explicit." *KSR International Co. v. Teleflex Inc.* 550 U.S. ____ (2007) (slip op. at 14) (citing *In re Kahn*, 441 F. 3d 977, 988 (CA Fed. 2006) ("[R]ejections on obviousness grounds cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness")).

Here, the Examiner has failed to make any reasoning behind the combination of Blackburn, Ehricht, Lipshutz and Paul. For, example, there is no explanation of how the teachings of the references are "interrelated," only a laundry list of features (supposedly) taught by each reference. As Applicants have detailed above, the references do not even stand for the teachings that the Examiner has assigned to them. Even if one accepts that such teachings can be found in the art of record (which Applicants do not), there is no reason to combine the various teachings in a way that would lead a person of ordinary skill to the devices of claims 1 or 44 or the claims that depend from them. In short, the Examiner has failed to make a *prima facie* case of obviousness. Applicants therefore respectfully ask that the rejection under § 103 be reconsidered and withdrawn.

Rejection under 35 U.S.C. § 102(e)

The Examiner has indicated that claims 1-4, 7-8, 10, 12 and 18-24 are anticipated by Ehricht under § 102(e). Office Action at 6, last paragraph. Applicants respectfully disagree. As detailed above, and in the response filed June 24, 2008, which is incorporated by reference, Ehricht does not describe each and every element of independent claim 1. Accordingly, the claims are not anticipated. Applicants respectfully ask that the Examiner reconsider and withdraw the rejection under § 102(e).

Applicant : Torsten Schulz et al.
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CONCLUSION

Applicants ask that all claims be allowed. A petition for a three-month extension of time and the required fee are filed with this reply. Please apply any other charges or credits to deposit account 19-4293.

Respectfully submitted,

Date: 1-27-08



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